Traffic and Access Assessment

The Future of the Former Stone Industrial Property
City of College Park Community Meeting
April 5, 2021

Aditya Inamdar and Amelia Martin



Overview

- Traffic Impact Background
- Trip Generation Rate Comparisons
 - Conceptual Townhome Program
 - Conceptual Market Place Program
 - Conceptual Programs Comparison
- Access Conditions
- Question & Answer



Traffic Impact Background

What are the important parts of a Traffic Impact Study?



Rush Hour Conditions



Study Intersections

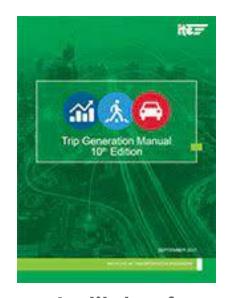


Scenarios

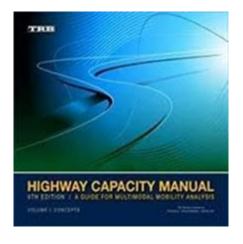


Traffic Impact Background

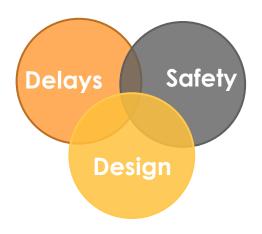
What sources are used to conduct the study and make recommendations?



Institute of
Transportation Engineers
(ITE) Trip Generation



Calculate Delays with the Highway Capacity Manual (HCM)



Local Guidance to Balance Trade-Offs



Trip Generation and Parking Rates

ITE 10th Edition Trip Generation Rates

Prince George's County Zoning Code Parking Rates

Land Use	AM Peak	PM Peak	Parking
Single-family residential	0.74 trips/unit	0.99 trips/unit	2.0 per unit
Townhomes	0.46 trips/unit	0.56 trips/unit	2.04 per unit
Multi-family residential (apartments/condos)	0.36 trips/unit	0.44 trips/unit	1.33 per unit (near metro)
Age restricted housing (apartments, condos, or townhomes)	0.19 trips/unit	0.23 trips/unit	0.66 per unit
Office	1.16 trips/KSF	1.15 trips/KSF	1 per 400 SF*
Retail	0.94 trips/KSF	3.81 trips/KSF	1 per 250 SF
Industrial	0.7 trips/KSF	0.63 trips/KSF	1 per 500 SF

^{*} Parking rate for office is 1 per 250 SF for first 2,000 SF. Thereafter, rate is 1 per 400 SF.



Trip Generation Comparisons

Assumes 10-acre site and densities allowed by zoning

Land Use	Size	AM Peak Trips	PM Peak Trips	Required Parking
Single-family residential	67 units	50	66	134
Townhomes	163 units	76	91	333
Multi-family residential	480 units	173	211	638
Age restricted housing	490 units	93	113	323
Office	326,700 SF	379	376	820
Retail	326,700 SF	307	1,245	1,307
Industrial	130,680 SF	91	82	261



Note: ITE also provides equations for some land uses, which may be more appropriate to use than rates in some cases. Only rates have been used for the purposes of comparison.



Conceptual Townhome Program



Source: Soltesz, LLC dated February 2020



Conceptual Townhome Program

- Assumptions
 - > 230 DU
 - ▶ ITE Land Use Code 220
 - Required parking spaces from <u>zoning code</u> ratio of 2.04 per dwelling unit. Does not account for any reductions that may be taken.

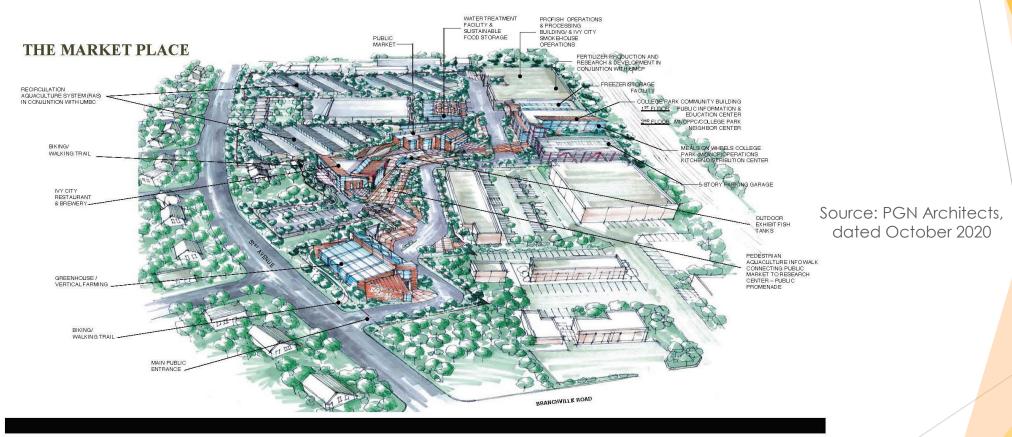
Land Use	AM Peak Trips	PM Peak Trips	Required Parking
230 Townhomes	106	129	~469



Note: Non-auto reductions may be taken for some sites with a more urban context than ITE data sites. Reductions have not been applied in this case for comparison purposes.



Conceptual Market Place Program





Master Land Development Program

210 7th Street S.E. Washington D.C. 20003 202.822.5995

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Conceptual Market Place Program

- Assumptions
 - ▶ 82K SF of retail, 442K SF of industrial, and 30K SF of recreational community center
 - ► ITE Land Use Codes 820 (Shopping Center), 110 (General Light Industrial), and 495 (Recreational Community Center)
 - Required parking spaces from <u>zoning code</u>

Land Use	AM Peak Trips	PM Peak Trips	Required Parking
82K SF Retail, 442K SF Industrial, 30K SF Community Center	439	659	~1,587



Note: ITE does not have an obvious land use code that matches the development program, given the mixed-use nature of the programming. Estimates are for order of magnitude only.



Conceptual Programs Comparison

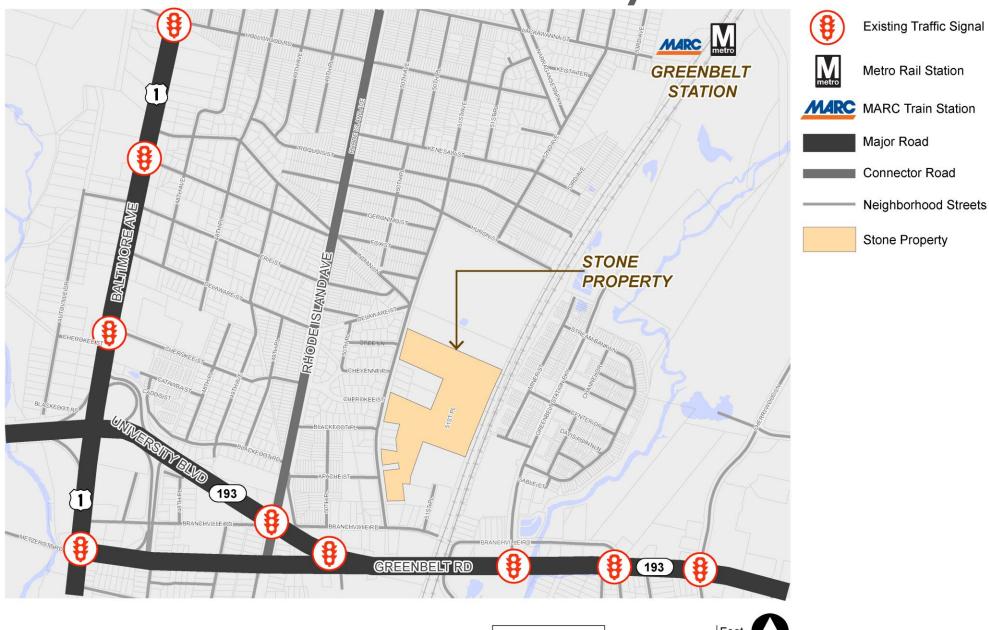
Land Use	AM Peak Trips	PM Peak Trips	Required Parking
82K SF Retail, 442K SF Industrial, 30K SF Community Center	439	659	1,587
Townhomes	106	129	469
Difference	333	530	1,118



Note: These estimates are not final, nor have they been determined in conjunction with potential owners. <u>Estimates are for order of magnitude only</u>.

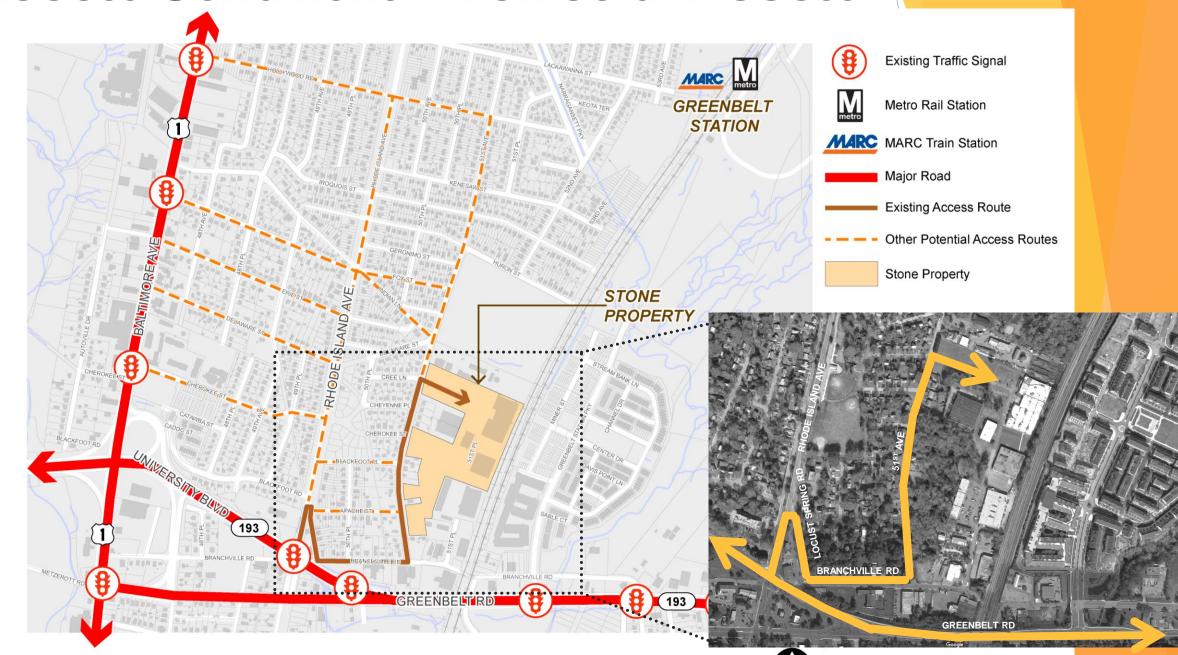


Access Conditions – Roadway Network

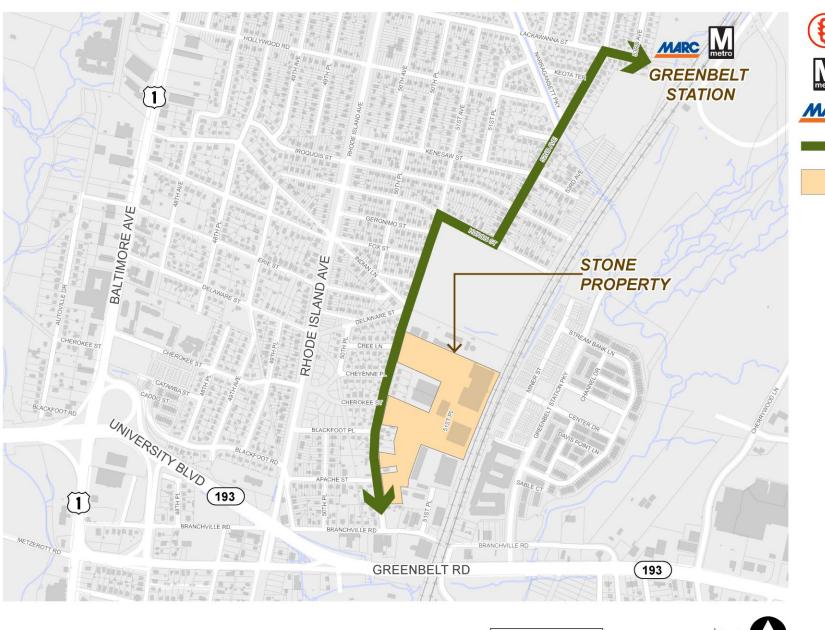


1,000

Access Conditions – Vehicular Access



Access Conditions - Pedestrian and Bicycle Connection to Train Stations



1,000



Existing Traffic Signal



Metro Rail Station



MARC Train Station



Access to Train Stations



Stone Property

Questions?

